MTK Basic Test 03 - Units with Pint

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```
In [4]: %%javascript
        IPython.load_extensions('IPython-notebook-extensions-3.x/usability/python-markdown/main');
```

```
<IPython.core.display.Javascript object>
```

1 Test Units with Pint

This section tests using the Pint library to implement units in MTK. The following analysis computes the area of a rectangle.

```
In [28]: from pint import UnitRegistry
         units = UnitRegistry()

         def displayFloat(x):
             return '{:~P}'.format(x)

         #def displayFloat(x, u):
         #    return displayFloat(x.to(u))
```

```
In [31]: length = 2.5 * units.meter
         width = 2.0 * units.meter

         area = length * width

         force = 20 * units.newton
         pressure = force / area
         pressure.ito(units.pascal)
```

The area of a rectangle of length {{displayFloat(length)}} and width {{displayFloat(width)}} is {{displayFloat(area)}}. For a force of {{displayFloat(force)}} the pressure on the rectangle is {{displayFloat(pressure)}}.
